

Description of a new *Margarinotus* species with additional notes about two histerids from Nepal (Col., Histeridae)

by

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With 5 figures and 1 map

ABSTRACT

The new species *Margarinotus* (*Ptomister*) *kathmandu* sp. n. is described. *Zabromorphus salebrosus* is considered as a subspecies of *Z. punctulatus* and *Onthophilus rugatus* is synonymized with *O. sculptilis*.

On a base of materials collected in North East India and Nepal the author gives the description of a new species from Nepal as well as the notes on synonymy and taxonomical status of some Nepalese species.

All these materials are kept in the Muséum d'Histoire naturelle, Genève. The author wishes to express his gratitude to Dr Ivan Löbl who gave him the opportunity to study this interesting collection.

***Margarinotus* (*Ptomister*) *kathmandu* sp. n.**

Body oval, convex, black and shining. Upper side finely punctulate. Forehead a little triangularly impressed, frontal stria distinct, not widely but rather strongly bent medially (Fig. 1). Mandibles flat or feebly convex, more distinctly punctulate than forehead. Scapus black, funiculus pitch-black, the antennal club tomentose, with two distinct sutures.

Pronotum rounded laterally, its anterior angles jutting. Inner lateral stria of pronotum distinct, complete, the outer one widely interrupted behind the head. Both lateral striae parallel to margin laterally. Marginal stria thin, interrupted anteriorly, reaching

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to the base of pronotum at sides. Disc nearly smooth; more distinct punctures present in a longitudinal area on each side within the lateral striae (Fig. 2).

Subapical impressions of elytrae indistinct. Dorsal striae 1-4 complete, the fifth one not reaching the middle with the hooked appendix at the base; the sutural stria a little longer. All the dorsal striae distinctly crenate. Outer subhumeral stria complete, the inner one absent. Epipleura feebly impressed, with one epipleural stria and with a row of coarser punctures along this stria.

Propygidium finely impressed at sides, coarsely and rather thickly (1/3-1/2) punctate, the punctures become finer apically. Punctuation of pygidium thicker, all the punctures ocellate.

Prosternal lobe rounded, distinctly but not too thickly punctate (2-3), the punctuation more distinct at sides. Marginal stria complete. Prosternum a little convex, rarely and finely punctulate, without carinal striae. Mesosternum feebly sinuous, its marginal

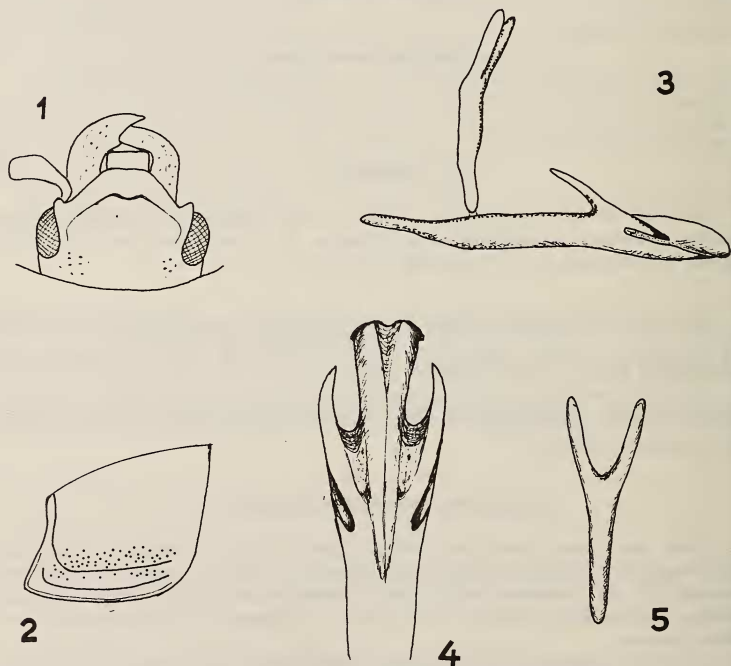


FIG. 1-5.

Margarinotus (Ptomister) kathmandu sp. n. 1 — head, 2 — pronotum, lateral view, 3 — median armature and median lobe, lateral view, 4 — apex of the median lobe, ventrally, 5 — median armature, ventrally.

stria complete, crenate, not united with marginal metasternal stria. Metasternum very finely punctulate at sides, with fine transversal stria at apex. Suture between meso- and metasternum distinct, crenulate.

Abdominal segment I with oblique striae laterally and with several punctures along these striae.

The structure of the median lobe and median armature as figured (Fig. 3-5).

Legs pitch-brown, the foretibiae with 5 teeth, the mid- and hindtibiae with numerous spinules at outer margin.

Length: PE: 3.2-3.7 mm; total: 3.8-4.5 mm. Width: 2.7-3.0 mm.

Holotype: A male, Nepal, prov. Bagmati, Gokana For., near Kathmandu, 1400 m, 31.III.1981, leg. I. Löbl and A. Smetana.

Paratype: specimen of undetermined sex, same data as holotype. Holotype and paratype are deposited in the Muséum d'Histoire naturelle in Genève.

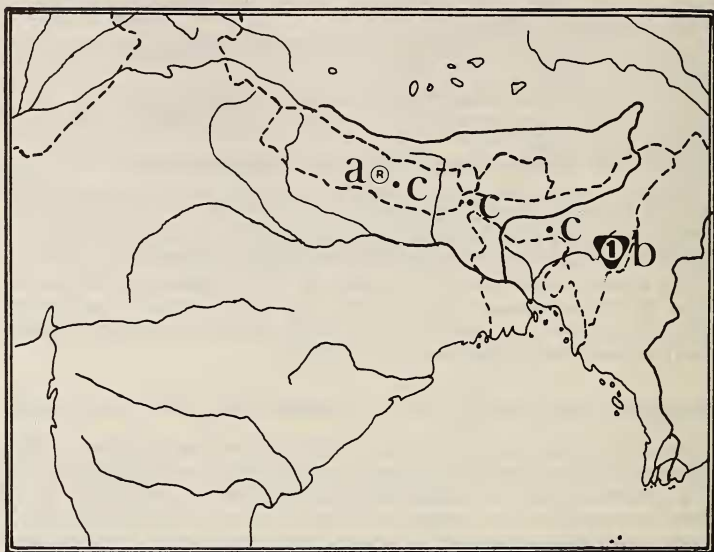
This species is placed near the European *M. (P.) distinctus* (Er.) and the East-Siberian *M. (P.) wenzelianus* Kryzh. et Reich. From both it differs by finer punctuation of pro- and pygidium and particularly by curious structure of the male copulatory organ (KRYZHANOVSKIY & REICHARDT 1976: 345, 417).

Onthophilus rugatus Thérond, 1978 = *O. sculptilis* Lewis, 1892. NEW SYNONYMY

THÉRON (in THÉRON & SCHAWALLER 1978: 238) described his species comparing it only with the West-Palearctic *Onthophilus striatus* (Forst.) and *O. convictor* Norm. with a complete omission of two Burmese species described by LEWIS (1892: 353, 354). Detailed comparison of the descriptions showed, however, that there are no real differences between *O. rugatus* and *O. sculptilis*. Both descriptions and figures given by THÉRON (*loc. cit.*) and LEWIS (1913, t. VIII, f.2) are in full agreement. On the other hand, the type-locality of *O. sculptilis* given as "Burma" in 1892 lies in fact on the territory of contemporary India: East India, Manipur State. A definite solution of the identity problem of *O. rugatus* and *O. sculptilis* was possible due to a large series collected by Löbl and Smetana in Nepal (Bagmati Prov., Dobate Ridge, NE Barabise, 2700-2800 m, 2.V.1981, 33 ex.) and by Besuchet and Löbl in West Bengal (Darjeeling distr., Algarah-Labha, 1900 m, 9-11.X.1978, 7 ex.) and Meghalaya State (Khasi Hills, Shillong, 1850-1950 m, 25.X.1978, 1 ex.). As shown on Map 1 there is a natural transition between the type-localities of both, *O. rugatus* and *O. sculptilis*. It fully gives the reasons that *O. rugatus* and *O. sculptilis* are the same species (*O. sculptilis* has, therefore, priority) occurring in the subtropical forests on the southern side of Himalayas.

O. sculptilis is a rather stable species, varying only in length: from 1.8 mm to 2.5 mm.

The distribution of the genus *Onthophilus* Leach is of Holarctic type, it comprises a total of thirty-two species. Fourteen of them are recognized from the Nearctic region (HELAVA 1978); the remaining are recognized from Palearctic and Australia (1 species). Eight of these are extant in Siberia, China, Taiwan and Japan, and six in Europe, the Near East and northern Africa. After KRYZHANOVSKIY (1971) the members of the genus *Onthophilus* belong to a Holarctic zoogeographical group strictly related to humid temperate zones of Eurasia and North America and their intensive speciation process fell at the end of Tertiary. Thus, it might be expected that the present disjunctive distribution of *O. sculptilis* and the second Burmese species *O. tuberculatus* has been caused by great climatic changes at the beginning of Quaternary. In Pleistocene the moving of altitude zones in tropics allowed these species to settle the southern side of Himalayas. In a warmer postglacial period their distribution was limited strictly to high elevations.



MAP 1.

Distribution of *Onthophilus sculptilis* Lew. a — type-locality of *O. rugatus* Thér., b — type-locality of *O. sculptilis*, c — new localities.

Zabromorphus salebrosus (Schleicher, 1930) only a subspecies of *Z. punctulatus* (Wiedemann, 1817).

Zabromorphus salebrosus as yet is the only one *Zabromorphus*-species known to occur in Himalaya. SCHLEICHER (1930: 133) pointed out the differences between *Z. salebrosus* and *Z. punctulatus* as follows: "Das Halsschild ist bei *punctulatus* im vorderen Drittel eckig verjüngt, während es sich bei *salebrosus* von der Basis an in gleichmässigen Bogen verjüngt. Auch ist *punctulatus* im ganzen viel schmaler, walzenförmiger. Der Subapikaleindruck ist ganz beträchtlich stärker. Die Punktierung auf den Flügeldecken ähnlich wie bei *salebrosus*, aber zwischen Naht- und 4. Dorsalstreif nur mit einigen apikalen Punkten. Ausserdem ist noch ein apikaler 5. Dorsal- und Nahtstreif vorhanden".

An examination of several specimens collected in Nepal, Pokhara, 1200-1600 m, showed, however, that the Nepalese specimens wholly agree with those of India and Java. The differences in form of body (more or less cylindrical, etc.) are in a normal individual variation and they were emphasized from very subjective point of view. Only one difference might be regarded as a real one: the absence of fifth and sutural stria and coarser punctation of the apex of elytra in *salebrosus*. Considering this as

well as the geographical distribution of both forms, the *salebrosus* should be treated at most as a Himalayan race of *punctulatus*: *Zabromorphus punctulatus* ssp. *salebrosus* (Schleicher, 1930), STAT. NOV.

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